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On-demand ride-hailing services

A study on the main reasons that motivate consumer engagement

Luzileine Alves Tremura Gonzalez Fagundes

Dissertation presented as partial requirement for obtaining the Master's degree in Information Management

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A STUDY ON THE MAIN REASONS THAT MOTIVATE CONSUMER ENGAGEMENT

by

Luzileine Alves Tremura Gonzalez Fagundes

Dissertation presented as partial requirement for obtaining the Master's degree in Information Management, with a specialization in Marketing Intelligence.

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DEDICATION

"Quando uma pessoa na casa faz um mestrado, a casa toda faz o mestrado".

Dedico esse trabalho ao meu marido pela sua persistência e pela sua paciência. Graças a ele eu não desisti mesmo quando eu tinha certeza que essa era a única decisão possível a ser tomada. Foi ele que acreditou em mim mesmo quando eu não tinha qualquer confiança naquilo que estava fazendo. Está aqui o resultado da nossa jornada dos últimos anos.

Dedico à melhor filha que eu poderia ter tido e que poderia me acompanhar em todo esse processo. Foram quase 3 anos sempre ao meu lado, com seu sorriso doce e sua alegria a cada descoberta. Sem você comigo, eu não teria descoberto a força, a coragem e a motivação dentro de mim. E também não teria superado todas as barreiras que surgiram. Foi por você e para você que cheguei até aqui. A maior lição que aprendi com você até hoje é que o que realmente importa nessa vida é tudo aquilo que está guardado no nosso coração e que, mesmo quando algo não foi como esperávamos, foi da melhor maneira que poderia ter sido.

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ABSTRACT

This research aims to examine the motivations that make customers to engage with on-demand ride-hailing service and what influences their decision. To do so, the study was based on the research from Mogilner & Aaaker's (2009) about the time versus money effect and on the application of the busy mindset concept from Bellezza, Paharia, & Keinan (2017). The research analyses whether the temporal and/or the monetary orientation influences the motivation to use this type of on-demand service and it also explores the motivation that is influenced most: experience, social influence, sustainability, or psychological ownership. In this respect, an online survey was adopted and to evaluate the results of the study it was chosen the structural equation modelling (SEM). The participants (residents in Brazil or Portugal) should have used the on-demand ride-hailing service at least once on the last 12 months. The inquiry was composed by thirty-eights statements separated into seven subgroups and the audience answered it using a 7-point Likert scale. The findings that experience and sustainability are the main motivation to consumers' engagement with the on-demand ride-hailing services reinforce to the industry the importance of consumer's experience and their concern about the environment. As a conclusion, the research found out that temporal orientation has stronger effects on the engagement than the monetary one.

KEYWORDS

On-demand ride-hailing service; sharing economy; time and money; experience; engagement.

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1. INTRODUCTION

Consumers are switching the way they deal with their sense of ownership (Morewedge, Monga, Palmatier, Shu, & Small, 2021) . Nowadays, it is usual to listen to people debating about the impact of the conscious consumption has not only on the environment, but also on their level of happiness. Research points out that whether consumption motivation move from possession desire to an experience attitude people feel happier (Van Boven & Gilovich, 2003). The shift from the ownership era to the access (or share) era offers to the consumers the possibility to enjoy new experiences, to know people and to stablish a different connection with all kinds of resources. The "new consumerism" based on the consumers' values and priorities redefinition was introduced by the Euromonitor International report (2016) and identified eight trends including the sharing economy and the experience as two of them. Under the report, while the prior connects people and business, relates supply and demand, empowers customers, and disrupts industries, the later highlights that doing, seeing, and feeling have higher importance than having.

The thematic is ubiquitous and there are an uncountable number of studies about the reasons that explain why much more consumers decide to join the collaborative economy every day. Many are the motivations to use an on-demand ride-hailing service: save time and money, reduces stress, help the environment, practice social responsibility, decrease expenses and increase convenience, activate social-psychological rewards (self-confidence, esteem, love), (Khajuria, 2020; Milanova & Maas, 2017). Moreover, the best price for the same service, the most convenient access, the highest customer benefit and the comfort and convenience are the most perceived advantages of adopting the shared transportation service when it is compared with the conventional one (Beutin, 2018; Sperling, Daniel; Brown, Austin; D'Agostino et al., 2016).

Consumers are motivated to change their attitudes, and the non-possession movement proofs it. Indeed, shifting the mindset possibly reflects how consumers perceive themselves and also how they would like to be perceived by others like family, friends and co-workers. Half of consumers in the US disagree that owning goods represent their status to the society (PwC, 2014, p. 14) and accordingly

to the same study experiences rise happiness more than purchases do. In other words, consumers are more susceptible to experiencing something instead of being the owner of it (Bardhi & Eckhardt, 2017; Fritze, Marchand, Eisingerich, & Benkenstein, 2020).

According to the white paper "Shared Mobility: Definitions, Industry Developments, and Early Understanding" (2015), car sharing, scoter sharing, bike sharing, on-demand ride services and ridesharing are the current shared mobility. The shared-mobility market is an innovative industry on which users rent and borrow vehicles for a short period on an "as-needed" basis with a cost-effective and convenient experiential (McKinsey, 2017; Shaheen et al., 2015). It has been influencing consumers preferences from car ownership toward alternative forms of transportation. Experts estimate that the shared mobility market can reach USD238.03 billion by 2026 globally while in 2019 it was evaluated in USD 99.08 billion (*Global Shared Mobility Market Projected to Reach USD 238.03 billion by 2026*, 2020). Furthermore, it is expected that the ride-sharing market size exceed USD 50 billion in 2026 (Wadhwani & Saha, 2020).

This research aims to examine the motivations that make customers to engage with an on-demand ride-hailing service and what motivates this decision. To do so, the focus of the study is the question: "Which are the main reasons that motivate consumers to engage with on-demand ride-hailing service?". To address this question, the author provides the theoretical background within the sharing economy and access-based model conceptualization on the first section of the study. Also, the essential concepts of time and money approaches, effects and perspectives related to scarcity, experiences, social influence, psychological ownership, sustainability, and engagement are on the same section. Next, on the second section are described the conceptual model and the hypotheses developed. Research methodology, survey design, data collection, data analysis and measurements are on third section as well as discussion, limitations, recommendations for future works and conclusion are on the fourth and fifth sections.

2. LITERATURE REVIEW

2.1. SHARING ECONOMY

To *share* is the act of use something at the same time as someone else. Feelings, experiences, ideas, knowledge, moments, and lots of abstract things (Belk, 2007) can be shared as well as goods such as apartments, vacation home, cars, bikes, furniture, toys, clothes, among as hundreds of thousand resources. In this case, it is not necessary to receive any money back. For example, whether someone share a tissue, this person does not expect to receive it back. On the other hand, when a car is shared, it must be received back. Benkler (2004) explained sharing as "nonreciprocal pro-social behaviour.". Belk (2007) describes sharing as something that is *ours* once two or more people divide the possession of this thing. He also explains sharing as "the act and process of distributing what is ours to others for their use as well as the act and process of receiving from other to your use". Lawrence Lessig (2008) defines the sharing economy as a collaborative consumption that involves "sharing, exchanging, and renting". Hamari, Sjöklint and Ukkonen describes as a peer-to-peer-based activity, coordinated through community-based online services (2016, p. 2049). Others present the sharing economy as the reduction or absence of ownership (Bardhi & Eckhardt, 2012; Kathan, Matzler, & Veider, 2016, p. 663; Stephany, 2015, p. 205), an economical/social system or model (Habibi, Kim, & Laroche, 2016, p. 277; Heinrichs, 2013, p. 229; Perfili, Marianna; Parente, Simona; Grimaldi, Michele; Morales-Alonso, 2019, p. 79; Sundararajan, 2016, p. 23) or even as a temporary access to under-utilized assets (Frenken & Schor, 2017, pp. 4–5; Kumar, Lahiri, & Dogan, 2018, p. 148) for a short period of time adopting a technology-based platform (Eckhardt et al., 2019). There is also who look at the sharing economy as "a blueprint of a future business idea that explains how to link economic, environmental and social issues."(Daunorienė, Drakšaitė, Snieška, & Valodkienė, 2015). In the absence of a consensus about the definition to the term "sharing economy", there are even studies aiming to define the best meaning by arranging definition and pointing out perspectives (Sánchez-Pérez, Rueda-López, Marín-Carrillo, & Terán-Yépez, 2020).

Researchers (2019, p. 7) identified five characteristics of sharing economy entities: 1) temporarily access (consumers gain the right to use something from other people per a short or a long period without any transfer of ownership), 2) economic transactions (consumers pay a value to use the resource), 3) reliance of a platform (normally internet-based, the system finds the match between providers and users and it facilitates their exchange), 4) enhance consumers role (consumers as prosumers – both users and suppliers at the same time) and 5) crowdsourced supply (many individual consumers co-working to the industry).

Many sharing-based industries has developed their business to give temporary access to tangible and intangible resources: transportation (e.g. Uber, Lyft), lodging (e.g. onefinestay), clothing (e.g. Rent the Runway, Gwynnie Be), financial services (e.g. Transferwise), food services (e.g. Deliveroo), office spaces (e.g. WeWork), accommodation (e.g. Airbnb), faming equipment (e.g. Machinerylin) among hundreds of others (Eckhardt et al., 2019; Kumar et al., 2018).

2.2. THE ACCESS-BASED MODEL

On the last decades, it has been observed an exchange on the way that consumers are handling with the conventional consumption model. They are searching for experiences (Bardhi & Eckhardt, 2012; Chen, 2009) and engaging in alternatives to the ownership (i.e the access-based services) instead of being held hostage of the "burdens of ownership" (Schaefers, Lawson, & Kukar-Kinney, 2016). The access-based service is defined as "market-mediated transactions that provide customers with temporarily limited access to goods in return for an access fee, while the legal ownership remains with the service provider" (Schaefers et al., 2016) i.e "no transfer of ownership takes place." (Bardhi & Eckhardt, 2012). Which means that consumers can access things that they cannot afford with paying for a temporal or long-term utilization without purchasing and avoiding any risks or responsibilities of the possession of them. To be the owner of something implies to be responsible for that thing regarding three types of risks: financial, performance (the uncertainty of the product's performance and the consequences of maintenance or replacement), and social (how the purchase

can be judged by other and the social influence this can have on someone's social standing) (Schaefers et al., 2016, pp. 571–572).

Bardhi and Eckhardt (2012, pp. 884–886) identified six dimensions that can be used to distinguish between various types of access-based model: temporality (when the consumption is temporary), anonymity (when consumers can access something exclusively or sharing it out), market mediation (when the access of something owned by other is done by the adoption of any technology or when the profit causes an economic exchange), consumer involvement (according to the consumption experience of each consumer), type of accessed object (within the nature of the access: experimental or functional), and political consumerism (access as a political tool to promote ideological interests). Also, Morewedge and others (2021) have pointed some benefits based on the access-based consumption model: economic value, better preference matching, convenience, more sustainable means of consumption, and the use of both scarce and new goods that were unaffordable until then.

Many are the factors that drive customers to continue using the access-based model: the relationship between consumer's motivation and intentional continuous usage, as well as the relationship between consumer's motivation to adopt trends and new services and the intention to continue to use sharing services. However, few studies have tried to understand the relation between customers' experience and the continued use intentions considering the sharing services (Tsou, Chen, Chou, & Chen, 2019).

2.3. TIME VERSUS MONEY

The concepts of time and money drive the attention of everyone every time everywhere. Mogilner and Aaker, for example, found forty-eight percent out of three hundred advertisements having time and/or money concepts into their messages (2009, p. 277). Not only they are guiding the day-by-day decisions such as to buy vegetables at the supermarket and cook them when arrive home or to order the dinner at any on-demand food app, but also influencing on the consumer decision making. In the previous example, the prior (buy and cook) is cheaper than the latter (order), but whether someone

orders, money is spent, and time is saved. Which one is the best option: save time or save money? Do people really take these constructs into consideration when they need to decide something? How much people really care about save time or save money?

Although time and money constructs are considered scarce resources, they have different characteristics. A recent study discuss about the characteristics of time and money regarding six dimensions: usage, source, evaluation, budget, fungibility and expectations (table 1) (2013). The authors mentioned that although time is a renewable resource because always have a 24-hours new day, it passes. While the cost of the time is underestimated, not always people are able to assess time's value. Time cannot be earned no matter what people do as well as it cannot be stored to be used in the future. Time usage is unconscious (Gross, 1987). In addition, time's value is perceived as ambiguous and vary according to the context (Leclerc, Schmitt, & Dube, 1995 - Studies 1 and 2), culture and life stage (Okada & Hoch, 2004). Meanwhile, authors explain that money is a controlled resource that can be saved and earned by expending some effort. Besides, it has a conscious use and its value is always the same independently of any transactional circumstance, culture, or age group (Okada & Hoch, 2004; Saini & Monga, 2008). Finally, the last but not the less important: people feel angry when they spend an unnecessary money.

	Time	**Money**	**Literature**
Usage	Uncontrollable (perishable and unconsciously used)	Controllable (storable and consciously used)	(Gross, 1987), (Soman, 2001)
Source	Inherent, renewable	Earned	
Evaluation	Subjective	Objective	(Leclerc et al., 1995), (Okada & Hoch, 2004), (Soman, 2001)
Budget	Fixed	Flexible	(Gross, 1987; Okada & Hoch, 2004)
Fungibility	Infungible	Fungible	(Leclerc et al., 1995; Okada & Hoch, 2004; Soman, 2001)
Expectation	Resource slack	Resource tight	(Zauberman & Lynch, 2005)

Table 1 – Distinctions between time and money from Chang et al. (2013)

Mogilner and Aaker (2009) have been studying the "time versus money effect" regarding the experience and the possession of a product for a long time. According to them, when people realize that their time seems to be limited, they intend to focus on personal goals. Additionally, besides the accumulation of shared experiences from spending time with other people reinforce their interpersonal connection, time spent with a product increases consumers' personal connection with it. Therefore, the authors analysed how a personal connection with a specific product could be influenced while consumers were activated by the time construct. Likewise, they predicted that when consumers are activated by money's construct they are not connected with other people, nor to their products. Briefly, the basic premise was that the construct of time potentially increases someone's personal connection with a product more than the construct of money. Especially when they were referring to product that are experiences not goods (2009, p. 278).

Bellezza, Paharia and Keinan (2017) described busyness "as long hours of remunerated employment and lack of leisure time" (2017, p. 119) and analysed the impacts that it has on the perception of status. The researchers investigated the conspicuous consumption in relation to time (instead of money) and concluded that the busyness of one at work is most valuable in the eyes of others than he/she leisure time. Which means that lack of leisure time added to the busyness results is a status symbol.

2.4. SCARCITY EFFECTS AND PERSPECTIVES

Scarcity is a situation in which there is not enough of something. In other words, scarcity is something that someone would like to have but does not have or have less than would like to. Some people would like to have more money. Likewise, others would like to have more time leisure. Moreover, people who have not a job would like to have a paid work. Also, environmental activists probably would like a world where more people are rethinking their relationship with the planet and the nature. These means that scarcity represents a wide range of scarce resources, tangibles, or intangibles. In a recent research Hamilton and her colleagues (2019) described four effects associated to the scarcity: resource scarcity, environmental uncertainty, social comparison, and

choice restriction. Goldsmith, Vladas and Hamilton (2020) combined each of these four effects to the consumer decision making, describing another perspectives (table 2). According to the articles analysed by the authors, the cognitive process can be similarly impacted by the scarcity of different types of resources and can happen in the short time, threats indicate a long-term impact of chronic scarcity on the consumer decision making, the notion of "not is enough" can have more negative than positive influence on someone's emotion and can be related to pride and hope feelings and the way consumers' manage their disappointment can have a relation with the resources that were available when they were only children.

Scarcity effects	Scarcity perspectives	Literature
Resource scarcity	Scarcity shifts the consumers attention.	(Mullainathan & Shafir, 2013)
	Scarcity changes the way that consumers allocate their scarce resources.	(Shah, Mullainathan, & Shafir, 2012)
	Scarcity as a mindset.	(Goldsmith et al., 2020)
Environmental uncertainty	Scarcity changes consumers' expectations and interaction with the environment.	(Mittal & Griskevicius, 2016)
	Scarcity as a threat.	(Goldsmith et al., 2020)
Social comparison	Scarcity counteracts the role of scarcity relative to others and in self-regulation.	(Cannon, Goldsmith, & Roux, 2019; Piff, Kraus, Côté, Cheng, & Keltner, 2010)
	Scarcity as a reference point.	(Goldsmith et al., 2020)
Choice restriction	Scarcity limits the consumer's ability to evaluate, choose, and consume products and services that they need or want.	(Botti et al., 2008; R. Hamilton et al., 2019)
	Scarcity as a journey.	(Goldsmith et al., 2020)

Table 2 – Scarcity effects and perspectives

2.5. EXPERIENCES

Experiences are personal and subjective. They represent "behaves, thinks, feels, acts, socializes, and senses" (Ceesay, 2020) and have a direct impact on the relationship between customers and brands. Acquired directly (interacting with a brand) or indirectly (searching for information with friends, family, or even on the internet), experiences are what happens when a consumer consumes a

product or a service. Furthermore, they are multidimensional consumption experiences and include hedonic dimensions (Brakus, Schmitt, & Zarantonello, 2009).

Researchers and practitioners have been working hard to find the best composition to the customers experiences (CX). Keyser et al. (2020) affirms that it is composed by the interaction touchpoints, the context of experience and the qualities of experience. Schmitt (1999) discusses five different types of experiences (or SEM - Strategic Experiential Modules): sense, feel, think, act and relate. Klaus and Maklan (2013) established the customer experience quality and presented four contexts: product experience, outcome focus, moments-of-truth, peace-of-mind. Despite those components, it is real that before deciding about a product or a service, customers take into consideration their own experiences and/or recommendations from other people.

2.6. SOCIAL INFLUENCE

Although information gathering about a product is the first step to get informed, a discussion with well-meaning influencers is an important element of social interaction (Amblee & Bui, 2011). Sociology explains social influence as an intentional or an unintentional effort coming from family and friends (direct references) or social media, newspapers, books and so on (indirect references) to change someone's beliefs, thoughts, feelings, attitudes, or behaviour (Gass, 2015; Tsou et al., 2019). These changes come up as a result of interactions with experts, groups or individuals who have a perceived or recognized knowledge about a product or a service compatible with the individual one.

Social normative norms (also known as social norms – SNs) "refer to an individual's beliefs about the typical and condoned behaviour in a given situation" (Kormos, Gifford, & Brown, 2015, p. 480) and "are formed in group situations and subsequently serve as standards for the individual's perception and judgment" (McDonald & Crandall, 2015). SN can be classified as injunctive social norms or descriptive social norms. The first refers to individual's beliefs about an acceptable behaviour in a specific situation and it is "associated with more interpersonally oriented self-awareness and greater conflict about conformity decisions" (2015). The second reflects individual's beliefs about how the

majority reacts to in that situation. The descriptive social norms still can be divided into two subgroups: descriptive subjective norms that "focus on the social influence of individuals perceived to be affectively important to the individual (e.g., relatives and friends)" and descriptive local norms where "the social influence of those who share the same social physical context (e.g., neighbours or co-workers), regardless of their emotional connection to the individual" is the most important. (2015, p. 480).

2.7. SUSTAINABILITY

Sustainability can be defined as the creation of "conscious balance between economic development, environmental protection, and social justice at both organizational and macroeconomic levels" (Nozari, Ghadikolaei, Govindan, & Akbari, 2021, p. 2). The "Triple Bottom Line" (TBL) approach was initially designed by Elkington (2013) and describes profit, people and planet (or economic, social and environmental) as the three pillars of sustainability. A recent research about the sharing economy effects on sustainability in the transportation sector (Nozari et al., 2021, p. 5) identified 33 variables, classified into economic, social, and environmental categories based on studies from 2015 and 2020. These variables came from since the monopoly power by platforms and the income of drivers until the lack of drivers' legal rights and the use of private cars by passengers which highlights that the joint of sustainability and the sharing economy is stronger than could be imagine until then. Just to exemplify this joint, the economic sustainability drives embraces economic growth requirements (such as financial stability), inflation rates, investments innovation and a fair distribution of natural resources between the global society (Daunorienė et al., 2015). The social responsibility drives "seeks to develop social stability systems" (2015). Moreover, the environmental sustainability drives are focuses on the biological and physical systems just as on the reduction of the produced goods aiming the sustainable consumption (2015). This – the sustainable consumption – can be defined as the "shaping and satisfying consumer needs to continuously reduce negative impacts of consumption on the environment and the wider society" (Tunn, Bocken, van den Hende, & Schoormans, 2019).

Many studies have been discussing the positive and the negative impacts of the sharing economy in favour of the sustainable consumption model (Ciulli & Kolk, 2019; Govindan, Shankar, & Kannan, 2020; Verboven & Vanherck, 2016). Regarding the economic outlook, the sharing economy impacts positively on the sustainability because it can reduce the resources' waste and raise the economic efficiency by substituting the ownership economy for the accessing one (Nozari et al., 2021). On the other hand, there are unintended negative effects of the sharing economy – the paradox of sustainable (Verboven & Vanherck, 2016) such as the "unregulated markets" (unfair competition, risk transfer and tax evasion)(Martin, 2016). Specifically, about the transportation industry, one of the indirect negative influences of the sharing economy is the increased demand for using the sharing transportation that can raise the demand for using shared cars and impact on the traffic congestions. Consequently, can also increase the pollution rate (Schor, 2016).

Cohen and Kietzmann (2014) discussed about the existing shared mobility business models for sustainability and analysed it regarding the ridesharing, carsharing, and bikesharing. They established a framework consisting of four blocks: value proposition, supply chain, customer interface and financial model. Regarding that this study aims to evaluate the ridesharing industry focusing on the on-demand ride-hailing service, it will describe the blocks of the ridesharing only. On the framework, the authors defined the value proposition as the ability of supporting many riders, as the possibility of generating an extra revenue for private drivers and as a cheap and fast way to move from a place to another. The supply chain involved requires "private vehicles and drivers and smartphone applications with location-based service" (customer just needs a smartphone application and a social network interface). And finally, the financial model allows an extra money to the drivers while intermediates receive a commission of each transaction.

2.8. PSYCHOLOGICAL OWNERSHIP

Also known as perceived ownership (PO) or individual psychological ownership (iPO), it refers to the individual's sense of ownership, the "mine" feeling, although ownership means "the legal right of possession". Accordingly to Pierce, Kostova, and Dirks (2003) "psychological ownership reflects a relationship between an individual and an object (material or immaterial in nature) in which the object is experienced as having a close connection with the self". The authors pointed out that the psychological ownership is composed of a cognitive and affective core and that the intellectual perception of someone reflects "awareness, thoughts, and beliefs regarding the target of ownership" (2003, p. 86). After analysing several theories and studies, the authors proposed that the psychological ownership are related to three human motives: (1) efficacy and effectance, (2) self-identity, and (3) having a place. The first one is motivated by the relationship of someone with the environment regarding that the interactions between both can reflect "control and subsequent feelings of personal efficacy and competence". The second is influenced by the ownership i.e what one's self-identity expresses to others and the continuing across the community. And the third is defined as a home effectively at the same time that it is described as the "home base", a place that people can call "my place" and where they feel connected with (possessions, languages, or countries, for example).

Regarding that possession has been changing and that the technological innovations are creating a vary of value to consumers and firms, it is necessary to remind the disruption that they are making on the psychological ownership. This "technology-driven evolution of consumption" related to the PO was evaluated by Morewedge, Monga, and others (2021) taking into account two dimensions: (a) legal ownership (in which customers purchase and consume their own private good) versus legal access (in which customers purchase a temporary access to something – product or service – owned by others) and (b) "solid" material goods (tangible goods acquired and owned by others) versus liquid experiential goods (experiences or events encountered and lived by oneself). Bardhi & Eckhardt (2017) also discussed about the solid and the liquid consumption explaining that the latter is

"ephemeral, access based, and dematerialized". To them, the liquid consumption allows the understanding of why and how consumers do not desire to buy a lot of stuff, do not want to connect their identity to a certain consumption and do not wish to create link with any brand and with anyone that uses the same brand.

2.9. ENGAGEMENT

Cambridge dictionary defines engagement as "the act of being involved with something.". Some authors point out that engagement is "a state of being involved, occupied, fully absorbed, or engrossed in something – sustained attention." (Higgins & Scholer, 2009, p. 102). Others define engagement as "a dynamic and iterative process that reflects actors' dispositions to invest resources in their interactions with other connected actors in a service system" (Brodie, Fehrer, Jaakkola, & Conduit, 2019). Looking through the marketing lens, it can be understood as the connection between consumers and firms, or as the attention that consumers pay on marketing communications, or as any impression that communication keep in consumers mind, or even as the consumers emotional involvement with a brand (Abdul-Ghani, Hyde, & Marshall, 2014, p. 121).

Customer engagement and consumer engagement have distinct meanings. Customer engagement (or firm-centric view) is about what the company must do to engage the customer while consumer engagement (consumer-centric view) is about what engage the customer most. According to the authors (Abdul-Ghani et al., 2014), the customer engagement is behavioural and can refers to word-of-month, referrals, and recommendations. The consequences of it are customer satisfaction, commitment with the brand, and brand loyalty. On the other hand, consumer engagement is a psychological state. This state leads as a result to a high level of engagement due to the continuous behaviour towards the object, including among other consequences time and money spent with the object and social interaction with other consumers. This psychological state of consumer engagement is also explained as cognitive (thoughts), affective (feelings), and motivational (consumers' energy towards an object of consumption) (2014). A customer can be engaged with an

object, a brand, a social group, a community and so on. Which comes before the engagement state are the experiences that the costumer had. The better experience, the higher the level of engagement. “The more strongly an individual is engaged, the more intense the motivational force experience.” (Higgins & Scholer, 2009, p. 102).

3. CONCEPTUAL MODEL AND HYPOTHESES

Regarding that the focus of this study is to evaluate how and if temporal and monetary orientation influence consumer engagement with on-demand ride-hailing service plus to understand which aspects motivate more the engagement with this service, the conceptual model proposed is:

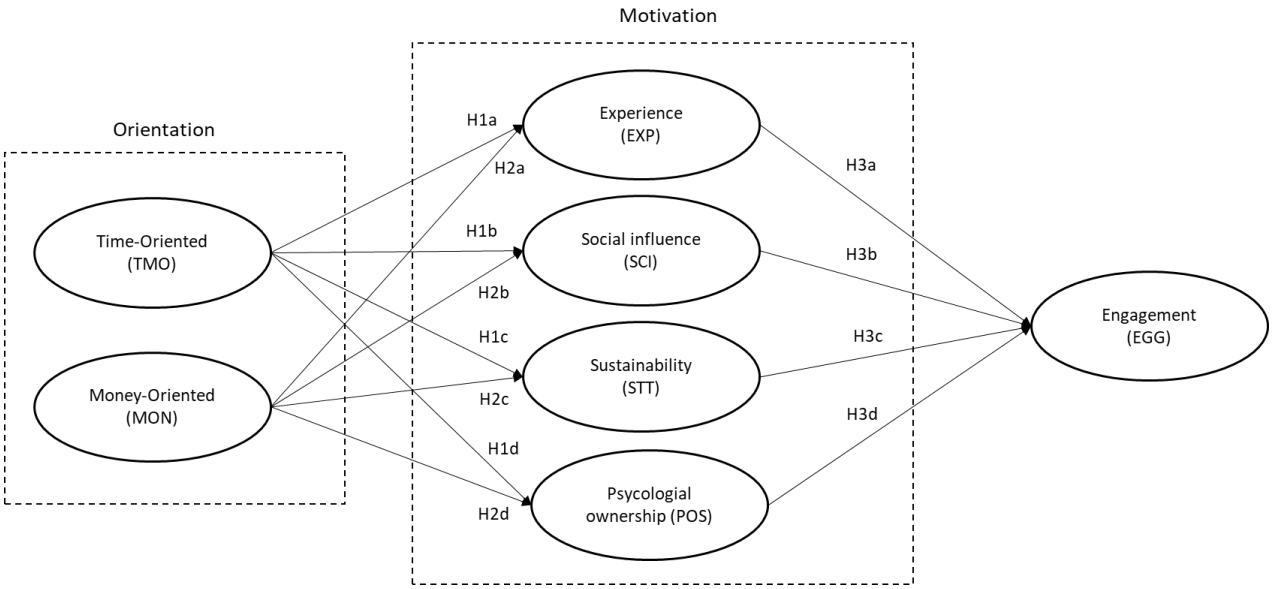

Figure 1 – Conceptual model

3.1. ORIENTATION

As exposed on section 2.3, both time and money are considered scarce resources although the usage of the prior in uncontrolled and the latter's is controlled even as time cannot be earned and money can. After the relevant outcomes obtained from a five experiments (in field and laboratory) on which the objective was to understand the impact that time and money approaches have on shifting product attitudes and decisions authors concluded that "product decisions and attitudes can be shifted by what is as subtle and as pervasive as mere references to time and money." (2009, p. 286). They also pointed out that the boost in the product attitude and decisions depends on the consumer's connection with the product: while the experience with a product tend to increase the personal connection with it, the possession of it reflects one' self. As such, the following hypotheses were developed:

H1a – *Consumers' experience with the use of on-demand ride-hailing services is positively influenced by the temporal orientation.*

H1b – *Consumers' social influence about the use of on-demand ride-hailing services is positively influenced by the temporal orientation.*

H1c – *Consumers' sustainable attitude with the use of on-demand ride-hailing services is positively influenced by the temporal orientation.*

H1d – *Consumers' psychological ownership about the use of on-demand ride-hailing services is positively influenced by the temporal orientation.*

H2a – *Consumers' experience with on-demand ride-hailing services is positively influenced by the monetary orientation.*

H2b – *Consumers' social influence sentiment about the use of on-demand ride-hailing services is positively influenced by the monetary orientation.*

H2c – *Consumers' sustainable attitude with the use of on-demand ride-hailing services is positively influenced by the monetary orientation.*

H2d – *Consumers' psychological ownership about the use of on-demand ride-hailing services is positively influenced by the monetary orientation.*

3.2. MOTIVATION

Experiences

Some researchers argue that customers search for unforgettable and enjoyable service experiences and look for the benefits they receive back from the service they have used. Many of them believe that services on the sharing economy are economical, convenient, and enjoyable (Tsou et al., 2019; Ulaga & Chacour, 2001). A successful experience makes customers feel unique besides making them

remember the experience for a long time and sharing with other people. The more positive an experience is, the better customers' satisfaction (Grace & O'Cass, 2005).

Shared economy services generally satisfy customers' expectations and they point out happiness whether they have to choose the same service in the future (Machala, 2020). Machala's study highlights that customers are willing to recommend services as Uber, Airbnb and Bolt to friends and family probably because they evaluate the experience as excellent and emphasize the friendly behaviour. (2020, p. 77)

H3a – *Good experiences have a high level of influence on the consumers' engagement with on-demand ride-hailing services.*

Social influence

Research suggests that the use of social norms have a positive influence behavioural on domains such as transport choices, littering, composting and actions to adapt to climate changes (Pristl, Kilian, & Mann, 2021, p. 636). A field experiment evaluated the influence of descriptive social norm information on the decrease of self-reported private vehicle use (Kormos et al., 2015) within the sustainable transportation behaviour. This study suggests that generally social norms can promote sustainable transportation behaviour and it concludes that, over the study, social norms information influences behaviour change.

H3b – *Social influence has a high level of influence on the consumers' engagement with on-demand ride-hailing services.*

Sustainability

The sharing economy impacts the sustainability when it evokes the access-based business model on which instead of owned individually, users share. Also, reducing the resources' waste and increasing the economy by providing job opportunities and extra revenue for private drivers, altruism are some

examples of how the sustainable consumption influences the engagement with on-demand ride-hailing services (Geissinger, Laurell, Öberg, & Sandström, 2019; Hamari et al., 2016).

H3c – *Sustainability has a high level of influence on the consumers' engagement with on-demand ride-hailing services.*

Psychological ownership

Some theorists explain the psychological ownership as individuals' bonds with their possessions (Jami, Kouchaki, & Gino, 2021). They argue that the PO helps people to connect themselves with how they are defined and presented to the others accordingly to what they have. That means they need to be seen regarding their possessions are "part of their identity". Consequently, possessions can help people to gain self-esteem and to affirm their identity. Jami, Kouchaki and Gino (2021) shape that when a person enhances its self-esteem and experience a psychological ownership that person are more likely to engage on social behaviour. They argue that individuals' evaluation of an object can be influenced by the type of ownership once they believe that an object is worth more whether they think they own it (2021, p. 700). Moreover, Dittmar (1992, p. 52) explained that people regulate their social relationship following their possessions once the awareness of their possessions serves as a "social-material locator". She wrote: "Possessions are viewed as signs of relationships, but also as pawns in the game which serve to regulate, undermine, or cement connections with others".

H3d – *Psychological ownership has a high level of influence on the consumers' engagement with on-demand ride-hailing services.*

4. RESEARCH METHODOLOGY

4.1. SURVEY DESIGN

The research has been segmented into three groups. The first one was composed of third-eight statements separated into seven subgroups: 1) temporal motivation (three statements), 2) monetary motivation (four statements), 3) experience (nine statements), 4) social influence (six statements), 5) sustainability (six statements), 6) psychological ownership (four statements) and 7) engagement (five statements). For each statement, the inquiries should use a 7-point Likert scale in which 1 indicated "totally disagree" and 7 represented "totally agree" to recognize themselves. The second group was consisted of four subgroups focused on the COVID-19 pandemic impacts concerning the frequency of use, the average spends per month, the sense of security and the confidence in the use of the on-demand ride-hailing service since the beginning of the global health issue. Each subgroup had four statements and the inquiries should select one alternative on the three multiple-choice options. The aim was to try to identify whether the respondents had increased, decreased, or remained their usage habits regarding the global pandemic. Finally, the third group was composed of six sociodemographic questions.

Primally, it was presented the survey's objective and requested an agreement to the consent terms. It was given a preliminary information concerning the anonymity of the data collected, the academic purposes and the required legal age (over 18 years old). Secondly, people were asked whether they had used any on-demand ride-hailing services on the last twelve months at least once. Those who answered "No", read a thank you message for their participation. Only those that responded "Yes" to the previous question were allowed to answer the questionnaire.

4.2. DATA COLLECTION

People living in Portugal and Brazil were recruited on social media such as LinkedIn, Instagram, Facebook and WhatsApp. Besides, four hundred eighty-two Master' students at Nova IMS (Lisbon – Portugal) were invited by e-mail to answer the questionnaire. The online survey was available to be

responded from August to October of 2020 on Qualtrics platform. The average expected time to complete the survey was approximately 7 minutes. A total of four hundred sixty-six valid responses were received.

4.3. DATA ANALYSIS

To evaluate the results of the current study it was adopted the structural equation modelling (SEM). There are two possible methods to be applied within SEM: the covariance-based SEM (CB-SEM) and the variance-based (PLS-SEM) – partial least squares, sometimes called "projection to latent structures" (Kazár, 2014). While CB-SEM aims to minimize "the distance between the observed and the predicted covariance matrices" (2014) and estimates how well-established some theories are, PLS-SEM focus on "maximize the explained variances of the latent variables" (Nguyen-Phuoc, Su, Tran, Le, & Johnson, 2020) besides is adopted for exploratory analysis and for testing developmental theories. Regarding that either CB-SEM and PLS-SEM are the most suitable techniques to predict or to explore a model (Garson, 2016) and concerning that the objective of the present study is to explore the motivation to use on-demand ride-hailing services based on an exploratory model, the PLS-SEM method has been chosen.

4.4. MEASUREMENTS

4.4.1. Respondent´s profile

Four hundred sixty-six participants completed the survey. Three hundred nineteen (68.5%) of them have replied to the demographic questions. These questions were inserted aiming to understand the inquiries profile according to their gender, age, nationality, country of residence, marital status, educational level, and occupation. To complement the profile's analysis, the frequency of use of the on-demand ride-hailing service on the last 12 months and the average spend per month with this service were also asked. (See appendix B).

For those who have answered the demographic information (68.5% of the inquiries), women were the major respondents (63.1% versus 36.9% of men). People from 25 to 54 years old represented the

majority on which 36.3% are from 25 to 34, 38.5% are from 35 to 44 and 16.7% from 45 to 54. Regarding the nationality and country of residence, 53.0% of the sample were Brazilian nationals although 45.5% lived in their birthplace. Despite Portuguese nationals represented 13.3% of the respondents, 21.5% of the sample elements lived in Portugal. One hundred ninety-four participants (41.6%) were graduated and seventy-seven (16.5%) had a master's degree. Forty-one point sixty percent were full-time employed and sixteen point one percent were entrepreneur. Only nine point nine percent of the inquiries affirmed that always used the on-demand ride-hailing service on the last 12 months. The average spend monthly was up to 30€ to more than fifty-seven percent of the respondents.

4.4.2. COVID-19 results

After the beginning of the current study, in March 2020, the World Health Organization decreed the COVID-19 pandemic (Ducharme, 2020). The survey about the use of the on-demand ride-hailing service started seven months after that decree, in August 2020. Keeping in mind that the inquiries should have used the on-demand ride-hailing service at least once on the 12 months prior to the participation on the survey and that the potential impacts of the global situation could have on the use of this type of service, the study tried to understand how the user's relation with a ride service after COVID-19 was.

The frequency of use increased to 44.0% of the inquiries. Consequently, it was a rising on the average spend per month to 44.4% of the respondents. Only 55 respondents (11,8%) informed a decrease on the sense of security when using the service, even though 23% of the answers claimed that the sense of security boosted. The confidence in the use of the service remained to 34.1% of the respondents and increased to 19.7%.

When it is taken into account the country of residence, there are some differences between Brazil and Portugal. The frequency of use increased to 84.5% of the Brazilian residents whereas to Portugal

residents this number is lower (56.6%). There was also an increment on the average spend per month to 83.9% of people in Brazil and 59.6% in Portugal.

Comparing the sense of security between the users living in Brazil and in Portugal, it is possible to find some similarity: to 48.9% of people living on the prior there was an increased on the sense of security while to 53.5% of those who live in the later also informed an increase. Lastly, when the inquiries were answered about the confidence on the use of this type of transportation, in both countries the confidence remained.

4.4.3. Temporal and monetary orientation

Aiming to understand the prevalence of the temporal and the monetary orientation to the on-demand ride-hailing service usage was analysed seven indicators. Three of them were focus on temporal orientation (Brodowsky, Anderson, Schuster, Meilich, & Venkatesan, 2008) at the same time as the other four indicators were examined regarding the monetary orientation (Soman, 2001) (see appendix A). Each indicator represented a dimension of the respective latent variables once the model is formative and formative models assume that the indicator is real (Garson, 2016, p. 19) (Figure 2).

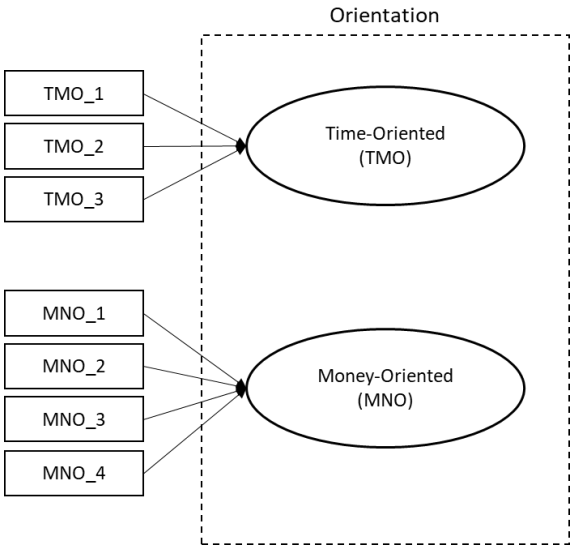

Figure 2 – Formative model – Orientation perspective

To realize the influence of each indicator at the respective latent variable it was explored the weight of the seven indicators (table 3). The weight highlights the importance of the indicator in explaining the construct's variance. As it is possible to visualize at table 3, the indicator TMO_2 ("I treat time as a scarce resource") has the highest significance to the temporal latent variable. On the other hand, to the monetary construct the most significant indicators are MNO_1 ("If I have wasted money with any product or service, I try to save it on another situation") and MNO_2 ("If I spend money on a product or service but cannot avail its benefits, I feel a sense of loss") with similar outer weight. Appendix A shows the detailed items research.

Latent Variables	Indicators	Weights
TMO	TMO_1	0.326
	TMO _2	**0.516**
	TMO _3	0.249
MNO	**MNO_1**	**0.342**
	MNO_2	**0.317**
	MNO_3	0.113
	MNO_4	0.287

Table 3 – Orientation outer weights

4.4.4. Motivation

Figure 3 below illustrates the twenty-four indicators that were analysed under the motivation perspective. Furthermore, the outer weights of each construct were also evaluated as presented on the table 4.

Considering the construct "Experience", to be an enjoyable experience stood out from the rest of the indicators (EXP_5). Likewise, the personal connection (POS_1) at the "Psychological Ownership" got the highest weight among the other indicators. The "Social influence" seems to be more relevant when related to the concern about the environmental issue (SCI_5) and the other's perception of frugality (SCI_6). Finally, by looking at "Sustainability", people seeing themselves as environmentally responsible individuals (STN_1) is the indicator with the highest weight to the construct followed by the concern about the harm products and services they use can cause in the environment (STN_6).

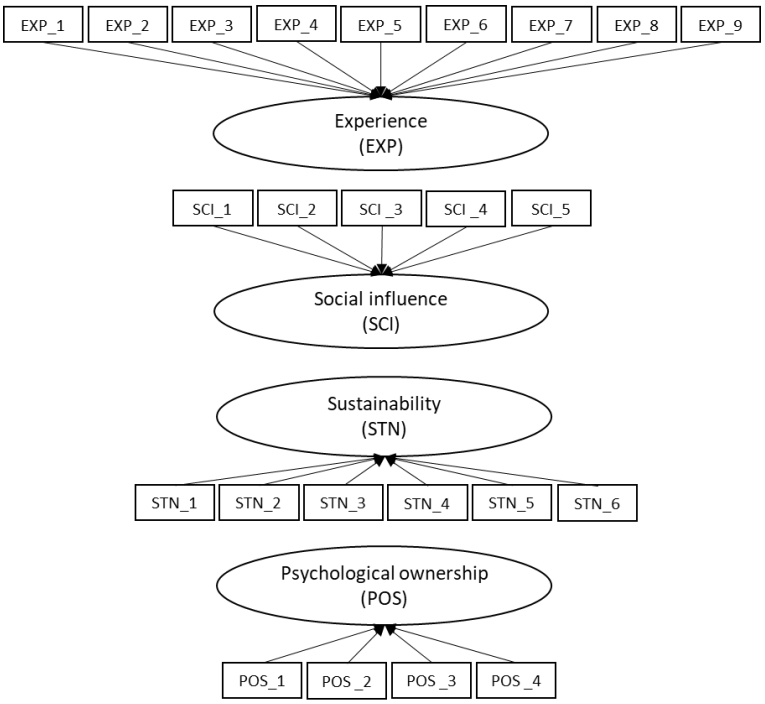

Figure 3 – Formative model – Motivation perspective

Latent Variables	Indicators	Weights	Latent Variables	Indicators	Weights
EXP	EXP_1	0.034	SCI	SCI_1	0.208
	EXP_2	0.032		SCI_2	0.257
	EXP_3	0.180		SCI_3	0.152
	EXP_4	0.085		SCI_4	-0.109
	EXP_5	**0.560**		**SCI_5**	**0.351**
	EXP_6	0.065		**SCI_6**	**0.323**
	EXP_7	-0.081			
	EXP_8	0.238			
	EXP_9	-0.035			
POS	**POS_1**	**0.736**	STN	**STN_1**	**0.502**
	POS_2	0.049		STN_2	-0.012
	POS_3	0.144		STN_3	-0.178
	POS_4	0.147		STN_4	0.160
				STN_5	0.220
				STN_6	**0.368**

Table 4 – Motivation outer weights

4.4.5. Engagement

The last latent variable observed was “Engagement” to which it was identified five indicators (see figure 4). The outer weight of each indicator was calculated, and the one who got the higher weight (EGG_1) was about to praise the on-demand ride-haling service to other people (see table 5).

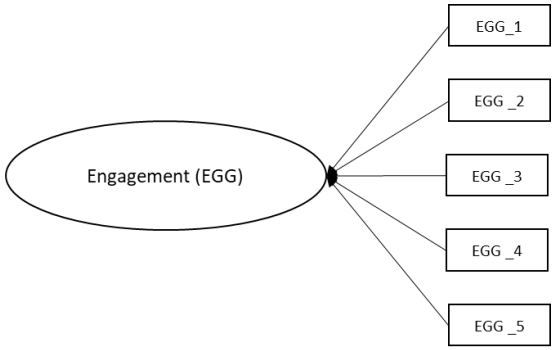

Figure 4 – Formative model – Engagement perspective

Latent Variable	Indicators	Weights
EGG	**EGG_1**	**0.435**
	EGG _2	0.268
	EGG _3	0.211
	EGG_4	0.052
	EGG_5	0.091

Table 5 – Engagement outer weights

4.4.6. Latent variables correlation

After investigating the motivation that influences people to use the on-demand ride-hailing services, the study tried to understand which were the main reason that leads people to use this type of transportation. To do so, a latent variable correlation was juxtaposed motivation with orientation (Table 6).

The construct “Experience” achieved the highest correlation with temporal orientation as well as with monetary orientation. It demonstrates that independently of the orientation, the experience is the most important variable in the model.

Additionally, it is possible to conclude that all the constructs within the motivation perspective have a notable correlation to engagement once the correlation coefficients are highly significant.

	TMM	MTM	EXP	SCI	STN	POS	EGG
TMM	**1**	0.903	0.810	0.570	0650	0.520	0.715
MTM	0.903	**1**	0.795	0.553	0.653	0.508	0.715
EXP	0.810	0.795	**1**	0.667	0.742	0.624	0.845
SCI	0.570	0.553	0.667	**1**	0.696	0.691	0.756
STN	0.650	0.653	0.742	0.696	**1**	0.784	0.832
POS	0.520	0.508	0.624	0.691	0.784	**1**	0.728
EGG	0.715	0.715	0.845	0.756	0.832	0.728	**1**

Table 6 – Latent variables correlation

4.4.1. Coefficient of determinant (R-square)

Also known as r-square, it is "the overall effect size measure of the structural model". All the endogenous latent variables have a r-square and, results above .67, .33 and .19 are considered "substantial", "moderate" and "weak" (Chin, 1998). Following the previous conceptualization, none of the latent variables on the study is "weak" once the minimum value found was 0.297 (Psychological Ownership). Experience (R^2 = .678) and Engagement (R^2 = .831) are considered "substantial", and Sustainability (R^2 = .446) is "moderate". Appendix C shows the variance of each construct on the proposed model.

The research model explains 83% of the variation in engagement which means that the predictors in the model (e.g., experience, social influence, psychological ownership, and sustainability) account for 83% of variation in engagement. At the same time, regarding the motivations to engage with the on-demand ride-hailing service and evaluating the predictors temporal and monetary orientation, the model is able to explain 67% of the variation in experience, 33% in social influence, 27,9% in psychological ownership, and 44% in sustainability. The goal is to validate the current framework by the adequate driver of motivation and engagement.

4.4.1. Loadings

Loadings vary from 0 to 1 which means that the larger the loading, the stronger and more reliable the measurement model (Garson, 2016, p. 60). Appendix C displays the loadings, and the reliability of the indicators presents in the model. By convention, loadings should be above .70 and reliability may be interpreted as the square of them (.70^2 = .49 reliability) (2016). Every thirty-eight indicators

adopted achieved the minimum recommended which means that the measurement model is reliable and the indicators significant to it.

4.4.2. Path coefficient

The model was addressed considering path coefficient varying from -1 to +1. The closest to absolute 1 the strongest the path is (Garson, 2016, p. 58) and it has both direct and indirect effects in the factors. On top of it, a bootstrapping was performed aiming at computing the significance of PLS.

The results demonstrate that both temporal and monetary orientation drive experience motivation (.497, $p<0.01$ and .346, $p<0.01$ respectively). This means that the two of them are significant[1] to experience, supporting hypotheses H1a and H2a.

Temporal and monetary orientation are also statistically significant to explain social influence motivation (.380, $p<0.01$ and .211, $p<0.05$ respectively) supporting H1b and H2b. Similarly, both temporal and monetary orientation were proven to be drivers of sustainability (.324, $p<0.01$ and .361, $p<0.01$), so H1c and H2c are also proven.

Regarding psychological ownership, temporal orientation was proven as a driver to it (.334, $p<0.01$) but the same does not happened concerning monetary orientation (.207, $p<0.1$). H1d was proven however H2d was not.

Not surprisingly, experience (.433, $p<0.01$), social influence (.196, $p<0.01$) and sustainability (.316, $p<0.01$) were proven as significant to the on-demand ride-hailing service engagement, which validates hypotheses H3a, H3b and H3c. The same did not occurred with psychological ownership (.074, $p<0.1$), which means H3d was not proven. These results reinforce that psychological ownership has lesser importance when compared with the other three motivations.

[1] ***significant at $p < 0.01$; **significant at $p < 0.05$; *significant at $p < 0.1$.

	Path coefficient	Significance *(p)*
TMM -> EXP	0.497	0,000
TMM -> SCI	0.380	0,000
TMM -> STN	0.324	0,001
TMM -> POS	0.334	0,003
MTM -> EXP	0.364	0,000
MTM -> SCI	0.211	0,032
MTM -> STN	0.361	0,000
MTM -> POS	0.207	0,069
EXP -> EGG	0.433	0,000
SCI -> EGG	0.196	0,000
STN -> EGG	0.316	0,000
POS -> EGG	0.074	0,068

Table 7 – Path coefficients and significance

5. DISCUSSION

The study examined the motivations to engage with the on-demand ride-hailing services and how temporal and/or monetary orientation influence this decision. The results confirm that the inquiries consider time and money a scarce resource and the findings are supported by earlier researches (Goldsmith et al., 2020; R. Hamilton et al., 2019).

Two out of four indicators suggested in the current study have more influence on the engagement with the on-demand ride-hailing services: experience and sustainability. An enjoyable experience is the indicator that best fits with the customers' thoughts within the experience latent variables (Tsou et al., 2019; Ulaga & Chacour, 2001). At the same time, a self-image as a sustainable person followed by the concern about the damage that products or services can cause on the environment are the indicators that have more impact in the sustainable latent variables.

The social influence is strongly influenced by the customers' frugality as well as by their intelligence and trendy attitudes plus their environmental concerns. These reinforce that people feel worried about what their behaviour indicates to other people (Gass, 2015; Tsou et al., 2019). Simultaneously, the inquiries report they have a personal connection with the on-demand ride-hailing service (Pierce et al., 2003). But, although the developed hypotheses indicate that social influence and personal ownership were constructs that influence positively the engagement with the on-demand ride-hailing services, the results shows that they have a low effect.

5.1. THEORETICAL IMPLICATIONS

The study theoretical contributions are the following. First of all, accordingly to the literature review, few studies analyse the relation between time and money orientation with the listed motivations to engage with on-demand ride-hailing services. Additionally, there is a lack of studies assessing simultaneously the consumer experience, the social influence, the sustainability, the psychological ownership and the engagement with the on-demand ride-hailing services. The main insight of the

study is to provide a complete analysis of the consumer temporal/monetary orientation combined with the consumer engagement motivation.

5.2. MANAGERIAL IMPLICATIONS

The findings suggest that companies have to be consumer experience-driven and also must encompass sustainable concerns within their set of values. Studies confirm that good experiences positively impact consumers future use and recommendation. In addition, sustainable consumption has a high level of influence on consumers' behaviour. The way of consumption matches the needs of the present time without compromising the ability of future generations to meet their own means. The above incorporates ecological, social, and economic aspects and can create an aggregated value to the companies. Should the motivation about the use of this mean of transportation had been available, the sharing transportation industry could establish better approaches to its target and the quality of the services could also be improved.

Humans are motivated by different needs: power, money, achievement, esteem, safety, security, affiliation. Once companies invest in competitive differentiation regarding consumer's needs, they can address issues such as cognitive, physical, sensory, emotional and social (Keiningham et al., 2020). Whether a company concentrates its communication on time saving, enjoyable experiences, accessible prices, and sustainable consumption approaches it might call consumers' attention and stimulate their engagement. Hence, customers prioritise those companies which behave like them.

5.3. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE WORKS

Regarding the survey, it has been identified some limitations. The first one refers to the fact that at about one third of the inquiries did not reply to the sociodemographic questions in the end of the questionnaire. One of the possible reasons is that the participants were concerned about the confidentiality of their personal information. Therefore, it is recommended that future studies should collect as much demographic information as possible reinforcing the information's confidentiality and aiming to revalidate the customers' profile. The second limitation refers to the respondents'

location: 45.5% of the inquiries who answered the location questions live in Brazil and 21.5% in Portugal. As both countries have distinct socioeconomic realities, it is recommended for further research a conjoint analysis. An equivalent number of inquiries from each country could enable to extrapolate the findings more accurately once the differences and the similarities would be more evident.

Another limitation observed is about the volume of responses to the COVID-19 queries. The study asked people their frequency of use, average monthly spend, sense of security and confidence in relation to the on-demand ride-hailing car services during the pandemic situation. A high proportion of the respondents (40.6%) did not reply or did not know the information to these questions. To have a better understanding about the COVID-19 impact in the on-demand transportation service, it is propounded an in-depth study focus entirely on the theme. Moreover, confidence and security should be normalized and examined carefully accordingly to the country since the level of security in terms of physical and material integrity change from a place to another. Finally, it is important to highlight that the current research do not measured the impact of the COVID-19 pandemic in the adoption of the on-demand ride-hailing services. For that, it is proposed a specific study to evaluate the real impact of the world sanitary situation in this business environment.

6. CONCLUSIONS

From most to least important to engage with on-demand ride-hailing service are experience, sustainability, social influence, and psychological ownership.

People are engaged with the on-demand ride-hailing services when they feel they are in accordance with their beliefs and attitudes. Independently whether the person is time or money-oriented the experience that the person had in the past influences the engagement with the service. This does not surprise the author once it was expected that positive situations potentialized future behaves. Other than that, when a resource is scarce, people tend to evaluate more carefully how to get the best out of it. To waste something that cannot be recovered seems to be out of the picture. Besides, more and more people reject situations that have impacts in the future such as unconscious consumption or products/services in disagreement with their sustainable beliefs.

Moreover, the study confirmed that both temporal and monetary orientation impact the motivations to engage with the on-demand ride-hailing service. The prior more than the latter.

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8. APPENDIXES

8.1. APPENDIX A – RESEARCH ITEMS

	Item	Statements	From/Adapted From
Orientation	**TMO**	**Time-Oriented**	
	TMO_1	I believe people should not waste time	(Brodowsky et al., 2008)
	TMO_2	I treat time as a scarce resource	
	TMO_3	There is no excuse for being late	
	MNO	**Money-Oriented**	
	MNO_1	If I have wasted money with any product or service, I try to save it on another situation	(Soman, 2001)
	MNO_2	If I spend money on a product or service but cannot avail its benefits, I feel a sense of loss	
	MNO_3	The more money I invest in something, the more anxious I am to complete it	
	MNO_4	Every time I invest money in product or service, I try to ensure that I get benefits commensurate with my investment	
Motivation	**EXP**	**Experience**	
	EXP_1	I use a ride-hailing because I prefer to know the ending and beginning times	(Brodowsky et al., 2008)
	EXP_2	I use a ride-hailing because I like to know how long it will take before I begin	
	EXP_3	I use a ride-hailing because it saves me time	(Bock, Zmud, Kim, & Lee, 2005)
	EXP_4	I can save money if I use a ride-hailing	
	EXP_5	I consider using a ride-hailing an enjoyable experience	(Van Der Heijden, 2004)
	EXP_6	I consider using a ride-hailing an exciting experience	
	EXP_7	I consider using a ride-hailing a funny experience	
	EXP_8	I consider using a ride-hailing an interesting experience	
	EXP_9	I consider using a ride-hailing a pleasant experience	
	SCI	**Social influence**	
	SCI_1	I have chosen to use the ride-hailing because it indicates to others that I am wealthy	(Aspara & Wittkowski, 2019)
	SCI_2	I have chosen to use the ride-hailing because it indicates to others that I am going with a trend	
	SCI_3	I have chosen to use the ride-hailing because it indicates to others that I am smart	
	SCI_4	I have chosen to use the ride-hailing because it indicates to others that I am doing something others do not do	
	SCI_5	I have chosen to use the ride-hailing because it indicates to others that I am caring about the environment	
	SCI_6	I have chosen to use the ride-hailing because it indicates to others that I am frugal	

Motivation	**STN**	**Sustainability**	
	STN_1	I would describe myself as environmentally responsible	(Haws, Winterich, & Naylor, 2014)
	STN_2	Whenever possible, I walk, ride a bike, carpool, or use public transportation to help reduce air pollution	
	STN_3	I consider the potential environmental impact of my actions when making many of my decisions	
	STN_4	Ride-hailing is environmentally friendly	(Hamari et al., 2016)
	STN_5	Ride-hailing is a sustainable mode of consumption	
	STN_6	It is important to me that the products and the services I use do not harm the environment	(Haws et al., 2014)
	POS	**Psychological ownership**	
	POS_1	I feel a personal connection to the ride-hailing service	(Bardhi & Eckhardt, 2012)
	POS_2	Using the ride-hailing service feels like something that is mine	
	POS_3	I feel being a user of the ride-hailing helps define who I am	(Yuksel, Darmody, & Venkatraman, 2019)
	POS_4	I feel a very high degree of personal ownership for the ride-hailing service	
Engagement	**EGG**	**Engagement**	
	EGG_1	I say positive things about the ride-hailing service to other people	(Eisingerich, Auh, & Merlo, 2014)
	EGG_2	I encourage friends and relatives to use the ride-hailing service	
	EGG_3	I recommend the ride-hailing service to someone who seeks my advice (advanced)	
	EGG_4	I keep up with things related to ride-hailing	(Bruneau, Swaen, & Zidda, 2018)
	EGG_5	I am passionate about the ride-hailing service	

8.2. APPENDIX B – DEMOGRAPHIC ANALYSIS

Gender	**#**	**%**
Male	118	25.3%
Female	201	43.1%
Do not know / Do not answer	147	31.5%
Age	**#**	**%**
18-24	16	3.4%
25-35	115	24.7%
36-44	122	26.2%
45-54	53	11.4%
55-64	6	1.3%
65 or above	5	1.1%
Do not know / Do not answer	149	32%
Nationality	**#**	**%**
Brazilian	247	53.0%
Portuguese	62	13.3%
Other	10	2.1%
Do not know / Do not answer	147	31.5%
Country of Residence	**#**	**%**
Brazil	212	45.5%
Portugal	100	21.5%
Other	7	1.5%
Do not know / Do not answer	147	31.5%
Marital Status	**#**	**%**
Single	100	21.5%
Married	140	30.0%
Divorced	32	6.9%
Registered partner	22	4.7%
Living with partner	23	4.9%
Do not know / Do not answer	149	32.0%
Educational Level	**#**	**%**
Middle school	1	0.2%
High school	6	1.3%
Undergraduate	22	4.7%
Graduate	194	41.6%
Master	77	16.5%
Doctoral/ PhD	6	1.3%
None of them	11	2.4%
Do not know / Do not answer	149	32.0%
Ocupation	**#**	**%**
Student	14	3.0%
Full-time employed	194	41.6%
Entrepreneur	75	16.1%
Unemployed	20	4.3%
Retired	5	1.1%
Other	9	1.9%
Do not know / Do not answer	149	32.0%

Frequency of use (last 12 months)	**#**	**%**
Always	46	9.9%
Frequently	123	26.4%
Sometimes	171	36.7%
Rarely	77	16.5%
Do not know / Do not answer (Dk / Da)	49	10.5%
Spent (avg per month in the last 12 months)	**#**	**%**
Less than 10€	126	27.0%
From 11€ to 30€	142	30.5%
From 31€ to 50€	68	14.6%
From 51€ to 70€	18	3.9%
From 71€ to 90€	13	2.8%
From 91€ to 110€	5	1.1%
From 111€ to 130€	5	1.1%
From 131€ to 150€	0	0.0%
More then 151€	0	0.0%
Do not know / Do not answer	25	5.4%

8.3. APPENDIX C – LATENT VARIABLES, LOADINGS, AND RELIABILITY

	Latent Variables	Indicators	Loading	Reliability
Orientation	Temporal Motivation (TMM)	TMM_1	0,93	0,86
		TMM_2	0,96	0,92
		TMM_3	0,81	0,66
	Monetary Motivation (MTM)	MTM_1	0,94	0,89
		MTM_2	0,96	0,92
		MTM_3	0,87	0,75
		MTM_4	0,96	0,93
Motivation	Experience (EXP)	EXP_1	0,76	0,58
		EXP_2	0,77	0,60
		EXP_3	0,90	0,81
		EXP_4	0,76	0,58
		EXP_5	0,98	0,97
		EXP_6	0,83	0,68
		EXP_7	0,82	0,66
		EXP_8	0,90	0,82
		EXP_9	0,88	0,78
	Social influence (SCI)	SCI_1	0,75	0,57
		SCI_2	0,85	0,72
		SCI_3	0,86	0,73
		SCI_4	0,78	0,60
		SCI_5	0,85	0,72
		SCI_6	0,88	0,77
	Sustainability (STN)	STN_1	0,96	0,93
		STN_2	0,83	0,69
		STN_3	0,90	0,81
		STN_4	0,90	0,81
		STN_5	0,89	0,80
		STN_6	0,94	0,88
	Psychological Ownership (POS)	POS_1	0,98	0,96
		POS_2	0,85	0,72
		POS_3	0,82	0,67
		POS_4	0,82	0,67
Engagement	Engagement (EGG)	EGG_1	0,97	0,95
		EGG_2	0,97	0,95
		EGG_3	0,96	0,92
		EGG_4	0,81	0,66
		EGG_5	0,79	0,62

8.4. APPENDIX D – STRUCTURAL EQUATION MODEL